

## PK86X High Purity Switch Pressure Transmitter

### Product certification



### Application scenario



Semiconductor



High purity/ultra-pure  
specialty gases



Gas distribution  
system

### Product features

Sealing	Test	Packaging	Surface treatment
Semiconductor-specific C-Seal, W-Seal, Through-flow design, etc.	100% helium leakage test	Vacuum packaging in a Class 100 cleanroom	The process connection surface has an EP grade finish with $Ra \leq 0.18\mu\text{m}$ .

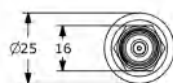
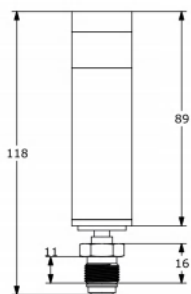
### Product Description

- This product features an integrated all-metal welded structure and offers the option of semiconductor-specific pressure joints. The liquid-contacting surface undergoes 100% special EP treatment and is degreased and oil-free cleaned, ensuring suitability for semiconductor, flat panel display, high purity/ultra-pure environments, and special gas pipeline applications.
- The pressure range spans from -14.7 to 5000 psi, with customizable ranges available to meet specific customer requirements.
- The product undergoes 100% leakage testing during production to meet industry sealing standards, mitigating risks of flammable, corrosive, or toxic media overflow.
- Manufactured entirely in a Class 100 cleanroom environment and vacuum-packaged, the product undergoes 100% cleaning, adhering to SEMI standards.

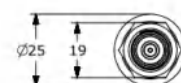
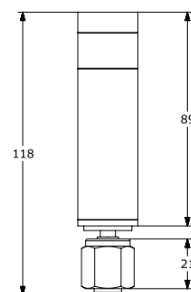
## Technical parameters

Applications	Gauge、 Absolute、 Negative measurement
Measurement range	-14.7.....0.....5000psi
Accuracy class (@25°C)	≥160psi: ±0.1%FS BFSL; < 160psi: ±0.15%FS BFSL
Max deviation (@25°C)	±0.25%FS (< 160psi: ±0.5%FS)
Overload pressure	Maximum 4 times Full Scale
Media temperature	-20.....85°C
Ambient temperature	-40.....125°C
Temp. coefficient(-20~85°C)	Zero: < 0.1%FS/10K; Full Scale: < 0.1%FS/10K
Supply voltage	DC24V (10...30 V DC) ; DC5V
Output signal	4...20mA、 0...5V、 1...5V、 0...10V
Switching point	PNP or NPN, Qty: 1
Display	4-digit panel display, dial rotatable up to 270°C
Lead wire	Top exit, detachable connector
Connection material	SUS316L / 316L VIM/VAR
Diaphragm material	316L VIM/VAR/ Nickel-based alloy
Stability performance	Typical: 0.1%FS/Year
Leak rate	≤ 1 X 10 <sup>-10</sup> kPa.l/s
Packaging	Double-layer vacuum packaging, compliant with SEMI E49.6

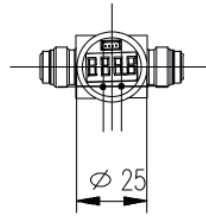
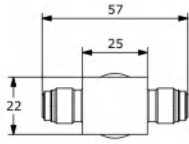
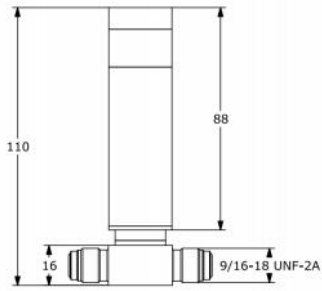
## Specifications and Dimensions (Unit: mm)



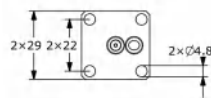
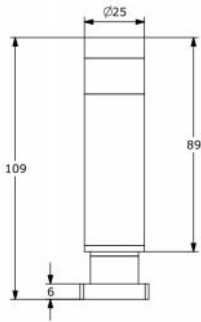
9/16-18UNF



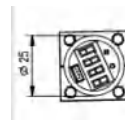
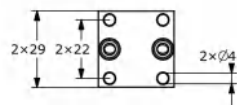
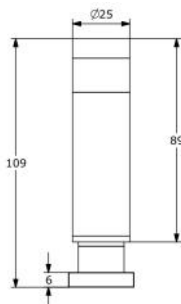
9/16-18UNF female thread



Specifications for 1/4" male thread fixed type



Specifications for 1.125" C-Seal



Specifications for 1.125" W-Seal

Range code table					
Code	Range MPa	Range Bar	Code	Gauge MPa	Gauge Bar
BG200K	(- 0.1~0.2)	(- 1~2)	G200K	(0~0.2)	(0~2)
BG300K	(- 0.1~0.3)	(- 1~3)	G300K	(0~0.3)	(0~3)
BG500K	(- 0.1~0.5)	(- 1~5)	G500K	(0~0.5)	(0~5)
BG700K	(- 0.1~0.7)	(- 1~7)	G700K	(0~0.7)	(0~7)
BG1M	(- 0.1~1)	(- 1~10)	G1M	(0~1)	(0~10)
BG2M	(- 0.1~2)	(- 1~20)	G2M	(0~2)	(0~20)
BG3.5M	(- 0.1~3.5)	(- 1~35)	G3.5M	(0~3.5)	(0~35)
BG5M	(- 0.1~5)	(- 1~50)	G5M	(0~5)	(0~50)
BG10M	(- 0.1~10)	(- 1~100)	G10M	(0~10)	(0~100)
BG20M	(- 0.1~20)	(- 1~200)	G20M	(0~20)	(0~200)

Range

- PU 30psi
- PT 60psi
- PS 100psi
- PR 160psi
- PN 250psi
- PM 350psi
- PH 500psi
- PE 750psi
- PD 1000psi
- PC 1500psi
- PB 2000psi
- PA 3000psi
- P4 4000psi
- P5 5000psi
- YY 客户自定义

Pressure Type

- G Gauge
- A Absolute
- M Negative
- T Torr

Output

- 005 0-5V
- 105 1-5V
- 010 0-10V
- 420 4-20mA
- 000 Nothing

Switching signal

- N1 NPN\*1
- P1 PNP\*1
- B Nothing

Process connection

- VM 9/16-18UNF
- VF Female 9/16-18UNF
- C1 1.5" C-Seal
- C2 1.125" C-Seal
- W1 1.5" W-Seal
- W2 1.125" W-Seal
- AA 1/4" male thread fixed type\*2
- BB 1/4" male thread rotating type\*2
- CC 1/4" female thread rotating type\*2
- BC 1/4" male thread rotating type \*  
1/4" female thread rotating type

10

20

30

40

50

PK86X High Purity Pressure Sensor with Display and Switch

Selection rules:

Requirement: -14.7~160psi, output 0-10V+NPN, 1.125" C-Seal

Selected model: PK86X-PRM010N1C2